



THE MEMPHIS DEPOT TENNESSEE

ADMINISTRATIVE RECORD COVER SHEET

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Officials unearth answers to base waste

By Tom Charlier
The Commercial Appeal

From a field where German mustard gas bombs were destroyed to pits where cyanide-based plating solutions were dumped, environmental investigators face unsettling questions as they prepare to clean up Shelby County's two major military installations.

For months, officials working under an alphabet soup of federal and state laws and agencies have been poring over old records and aerial photographs relating to the Memphis Defense Distribution Depot and the Memphis Naval Air Station at Millington. They've been gathering information for use in the separate hazardous waste cleanups.

Although the installations and their impending cleanup operations bear little in common, both have presented investigators with the same essential challenge: identifying present hazards from long ago and often poorly documented disposal practices.

At the 642-acre depot, officials want to know more about the buried wastes that have contaminated millions of gallons of underground water. And at the naval base, a primary issue facing officials is the fate of the hundreds of thousands of gallons of electroplating wastes dumped into gravel-lined wells during the 1950s and '60s.

"We're really kind of scratching our heads and trying to figure out where it is," said Jordan English, Memphis field office manager for the Tennessee Department of Environment and Conservation's Division of Superfund, who is working on the Navy base project.

The issues are taking on renewed importance as work enters critical phases at both installations. Investigative field studies and work on an environ-

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mental impact statement are set to begin this summer at the naval facility. And officials at the depot are organizing a citizens review committee to help oversee the cleanup and completing a community relations plan outlining efforts to keep neighbors informed.

The two bases will be cleaned up under different laws and programs and for different reasons.

The depot has been named to the national priority list of sites serious enough to warrant action under the federal Superfund program. The naval station was named last fall to the list of military facilities facing shutdowns or reduced operations under the 1990 Base Closure and Realignment Act, which requires that cleanup work be completed before the airfield is turned over to local or state agencies and the rest of the installation is "realigned" later this decade.

At both the depot and the Millington base, officials plan to unearth answers to questions that persist after more than a decade of environmental studies.

In a 1983 report, the Army said wastes that included potent insecticides, acids and even vials used in chemical warfare training were buried in Dunn Field, a 60-acre extension of the depot, between 1954 and 1970. Last year, the Pentagon reported that in 1946 as many as 29 German bombs containing mustard gas were disposed of at the depot after they were found to be leaking.

An 18-month, \$671,000 study completed for the depot more than two years ago found that industrial solvents and metals had seeped into a shallow aquifer beneath the depot. The contaminants were flowing toward a well field operated by the Memphis Light, Gas & Water Division, but they have not been found in the Memphis Sand, the deeper aquifer the utility pumps to obtain public drinking water. Allison Humphris, the U.S. Environmental Protection Agency's remedial project manager for the depot work, said the groundwater contamination is the immediate priority at the fa-

cility. Officials want to know how far off base the contaminants have gotten and ascertain more about their source, Humphris said.

"Obviously, it's a potential threat to the Memphis Sand," she said. However, "we don't have any evidence that it has compromised the Memphis Sand."

EPA must go back and check for "gaps in the data" because the earlier study identifying the contamination problem was conducted before the depot was named to the Superfund list, Humphris said. The study was "a good first effort" by the depot to assess environmental problems, she said.

Officials have been reviewing historical records and aerial photos to find out more about the past dumping, Humphris said. They're now revising plans for completing the overall investigation at the facility.

In the meantime, however, officials will pursue measures "to control the problems we know we have," Humphris said. That probably will involve a system to pump and treat contaminated groundwater and possibly curb its migration off base, she said, adding that construction on the project could begin within a year.

The community relations plan for the depot was drawn up amid rising concerns expressed by neighbors. During interviews with base officials in May 1993, residents said they feared that contamination at the depot might be linked to cancers, miscarriages, stillbirths and other health problems in their neighborhoods.

At a meeting set for 9 a.m. Thursday at the depot, a recently named technical review committee will hear a briefing on the overall cleanup effort.

At the Navy base, a total of 65 "solid-waste management units" — places that could be contaminated — have been identified. But officials say they have found no evidence of any serious threat to public health.

"There's never been a great deal of industrial operations here at NAS-Memphis, like you would see at other bases," said David Porter, the Department of Defense representative on the cleanup team at the base.

Of the 65 sites, only 15 will require full investigations and

possible cleanups, according to a plan completed early this year. At more than two dozen sites, officials will merely conduct sampling to confirm that no major problem exists, while 20 others will require no further work.

Base officials have just finished a draft "environmental baseline study." The product of interviews and a review of records, it contains a color-coded map identifying areas that are contaminated, those that are clean, ones that are relatively safe, and ones that need further

Investigation

The major areas of concern at the 3,490-acre base, officials say, are the six-foot-deep dry wells at two plating shops. For years, crews poured plating solutions containing cadmium, chromium and other hazardous wastes into the gravel-lined wells. One well received up to 900 gallons a day, according to a 1983 report. Other potential threats include a hazardous waste disposal area situated near a 19th Century cemetery and sites where jet fuel was dumped on the

ground and ignited during fire-fighting training exercises.

Nearly two dozen of the 65 sites are within the 1,500 acres of the installation that will be turned over to local or state agencies.

According to the base timetable, the airfield will shut down by October 1995 as training operations are moved to Pensacola, Fla. The interim leasing of base property could begin by late 1995, with the transfer of portions of the facility slated to start in early 1996.

The waste sites that aren't within the portion of the base to be transferred will be cleaned up under a Defense Department program similar to Superfund. That part of the facility will become home to the Bureau of Naval Personnel, which is slated to move from Washington to Millington in 1997.

In all, officials expect to spend more than \$5 million on cleanup and investigative work at the Millington facility, including \$175,000 during the current fiscal year.

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